

Having thus described the invention, it is now claimed:

1. A data communication system comprising:
at least one data communication device, each data communication device
5 having a client application;
a subnet comprised of :
at least one managed IP server for providing data to said at least
one data communication device; and
at least one gateway router for receiving data into the subnet,
10 transmitting data out of the subnet, and distributing data to
said at least one managed IP server,
wherein said client application redirects data to said subnet.
2. A data communication system according to claim 1, wherein said
15 at least one managed IP server processes data at an IP layer.
3. A data communication system according to claim 1, wherein said
data is a datagram.
- 20 4. A data communication system according to claim 3, wherein each
of said at least one managed IP servers is specialized for operating on different types of
datagrams.
5. A data communication system according to claim 4, wherein said
25 different types of datagrams including at least one of HTTP, HTML, JPEG and GIF.
6. A data communication system according to claim 1, wherein said
at least one managed IP server includes a cache for storing data.

7. A data communication system according to claim 1, wherein said data transmitted between said at least one data communication device and said subnet is compressed.

5 8. A data communication system according to claim 1, wherein said data transmitted between said at least one data communication device and said subnet is encrypted.

9. A data communication system according to claim 1, wherein said
10 at least one managed IP server obtains data from a destination host site, and subsequently transfers the data obtained from the destination host site to said at least one data communication device.

10. A method of accessing data in a data communication system
15 including: at least one data communication device, each data communication device having a client application; a subnet comprised of : at least one managed IP server for providing data to said at least one data communication device; and at least one gateway router for receiving data into the subnet, transmitting data out of the subnet, and distributing data to said at least one managed IP server, wherein said client application
20 redirects data to said subnet, said method comprising the steps of:
intercepting a request for data by the data communication device at the client application;
transmitting the request for data from the client application to the subnet;
receiving the request for data at one of said at least one gateway routers;
25 directing the request for data to one of said at least one managed IP servers, wherein the managed IP server obtains requested data in response to the request for data; and
transmitting the requested data from the managed IP server to the client application.

11. A method according to claim 10, wherein said managed IP server obtains the requested data from at least one destination host site.

12. A method according to claim 10, wherein said managed IP server
5 obtains the requested data from an associated cache.

13. A method according to claim 10, wherein said at least one managed IP servers processes data at an IP layer.

10 14. A method according to claim 10, wherein said data is a datagram.

15. A method according to claim 10, wherein said data transmitted between said at least one data communication device and said subnet is compressed.

15 16. A method according to claim 10, wherein said data transmitted between said at least one data communication device and said subnet is encrypted.

17. A method according to claim 10, wherein said request for data includes a header portion and a data portion, said gateway router decoupling the data
20 portion from the header portion.

18. A method for processing multiple requests for data from multiple host destination sites, the method comprising:

intercepting, at a client application, multiple requests for data from
25 multiple host destination sites and respectively assigning an associated channel number to each request, said multiple requests initiated by application service layer processes;
combining the multiple requests and the associated channel numbers into a data block;

transmitting the data block to a gateway router, wherein said gateway router forwards the data block to a managed IP server;

individually initiating the multiple requests for data at the managed IP server via the gateway router;

5 receiving the requested data at the managed IP server and forwarding the requested data to the client application; and

forwarding the requested data from the client application to the application service layer processes using the associated channel numbers.

10 19. A method according to claim 18, wherein said requested data is retrieved by said managed IP server from one or more host destination sites.

20. A method according to claim 18, wherein said requested data is retrieved by said managed IP server from a cache associated with the managed IP server.

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